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# THE GLITCHES AND RESOLUTIONS TO TEACHING PRACTICE EXPERIENCES OF PHYSICS STUDENT TEACHERS.

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**Abstract**

*This research work was carried out to investigate the Teaching Practice Experience of Physics Student Teachers in Adeyemi College of Education, Ondo, Ondo State. A descriptive survey research design was adopted in conducting this research. Four research hypotheses were formulated. The population comprises of 200 randomly selected Physics students who have concluded the 2017/ 2018 Teaching Practice exercise. All the hypotheses were tested at 0.05 level of significance. The data collected via questionnaire was analyzed using the Analysis of Variance (ANOVA). The result of the analysis of the study revealed that some of the challenges faced by student teachers during Teaching Practice exercise were summed up to include classroom management challenges, environmental challenges, curriculum development and instruction challenges and supervisory challenges. It was recommended that student teachers should be skilled in classroom management, accommodation should be provided by practicing schools, competent and dedicated supervisors should be used in TP supervision, supply of adequate curriculum guidelines e.g. standard textbooks etc., student teachers should be given allowances so as to ameliorate the situation and bring about effectiveness and efficiency in the TP exercise.*

**Keywords**: Challenges, Classroom Management, Student Teachers, Teaching Practice (TP)

## Introduction

Teacher education is an integral and important aspect of our education system. It involves the preparation of teachers who are responsible for transforming our educational theories and policies into practice.

The National Policy on Education highlights the purpose of teacher education to include producing highly efficient classroom teachers for all levels of educational system. For this reason, who would be teacher must be subjected to a more excellent training which will develop them to teach competently and efficiently, they must be adequately exposed to both academic (theoretical) and practical aspects of teaching (teaching practice) (Federal Republic of Nigeria, FRN, 2004).

Teaching today is an inevitable asset to the society that brings about the development of an individual and the society at large. Teaching is a process through which a trained individual (teacher) applies his/her knowledge of the learner; subject matter and methodology to help an individual (learner) learn to make them productive and useful citizen of the society.

The practical dimension of preparing teacher is commonly referred to as "teaching practice" and it is a crucial and very important aspect of teacher preparatory programme in teacher training institutions in general such as school of education in Colleges of Education and Faculties of Education in Nigeria Universities.

Teaching Practice (TP) is a period of time in which students in Colleges of Education and Faculties of Education in Universities are assigned to a specific educational institution (primary or secondary school) for a supervised teaching exercise as one of the requirements for graduation and effective teaching experience. Teaching practice is a practical teaching activity by which the student teachers are given an opportunity in actual school situations to demonstrate and improve training in pedagogical skills over a period of time. Teaching practice provides the laboratory where a student practices what he/she had learnt in his/her educational institution concerning effective and productive teaching. Teaching practice is an integral part of teacher education which cannot be overlooked. According to National Teacher Institute (NTI), Teaching Practice manual (2005) reveals the objectives of teaching practice are to enable the student teachers to:

a. gain general experience- academic professional, social and physical related to teaching profession
b. acquire a wealth of practical experience from all staff they are

likely to be in conduct with through active participation in the school assigned responsibilities

c. bring the student teachers into direct contact with such significant issues as the functions and responsibilities of various categories of school, staff; academic and non-academic

d. develop competence in proper lesson preparation delivery and assessment

During the teaching practice period, the student teachers are prone to facing some challenges in his attempt to apply his already acquired theoretical knowledge for solving practical classroom problems and school situation at large. One of these challenges is the control and modification of students' behavior. Other challenges which student teachers face in teaching practice are attitude of students, cooperating teachers and other staffs of the school and supervisors, curriculum development, instruction and environmental challenges.

The learning environment is the combination of some component which makes up the whole of where the learning takes place. Maduewesi (1990) sees the learning environment as to include the classroom surroundings, physical facilities in the classroom and the teacher-student relationship. The student teacher in the course of his/her practical teaching serves as the lord of the class; he coordinates, controls, assigns, reinforces, punishes, rewards etc. the various activities in the classroom. The teacher's ability to control the class at his initiatives and ability is known as classroom management. The physical environment comprises of those equipment, materials, laboratory equipment, apparatus, furniture and learning spaces that make up the place where the learner learn (laboratory, classroom). In a situation when all the above mentioned are available, student teachers will be motivated to carry out the tasks assigned to them and the aim of teaching practice will be achieved.

Supervisor is described as college representative (trained teacher) who is responsible for coordinating the student teacher while teaching. He also guides and coordinates the activities of the teachers and other school personnel towards the realization of educational objectives. The place of supervision cannot be ruled out of the teaching practice exercise. It is a very important factor in teacher preparation because they help in the improvement of teaching and learning processes. Supervision could be a regular exercise and any one to serve as a supervisor must be qualified and

experienced so as to render the desired help to the student teachers.

Curriculum can be defined as the totality of planned learning experiences which the learner will acquire under the guidance of approved educative agencies (e.g. home, school) in order to realize his/her needs, interest and aspirations for the benefit and growth of the society (Oyekan, 1997). From the definition, it implies that every activity in education sector is hinged on what is stated in the curriculum. The curriculum includes the subject matter, the students, the teachers and the physical environments. It encompasses all the course or subjects to be studied in the schools, the class activities and some other extra curricula activities that the school offers the students. The curriculum is usually planned at various levels by different people in order to contribute effectively to the achievement of educational goals. Curriculum development is the process of producing a comprehensive plan for educating individual in the society (Oyekan, 1997). Curriculum development consists of four interrelated components stages which are specification of curriculum goals and objectives, selection of learning experiences, organization and integration of learning experiences and evaluation. To achieve the objectives/ goals of education, the curriculum must be developed in consideration of the needs, interest and aspirations of the society to produce useful, responsible and productive citizens of the society.

Instructions are all the activities engaged in by the teacher with the aim of facilitating changes in the behaviour of the learners. It is through this interaction between the student teacher and the learners that brings about learning. Student teachers should use various strategies and materials to bring about the desired learning from their students. Strategies like lecturing, discussion and demonstration. Materials (instructional) include textbooks, pictures, charts object and laboratory charts. Effective use of the laboratory to facilitate practical skills and creativity should be inculcated by the student teachers so as to learn science process skills like creativity, modeling, graphing etc.

**Statement of the Problem**

The collapsed standard of education in Nigeria has reached an alarming stage yet education is the bedrock of development. Iniobong (2008) opined that the future of any nation depends on the quality of her teachers. We shouldn't forget that teacher in trainee (student teacher) are the teacher of tomorrow, on this note, all the challenges facing education (teaching and learning) should be resolved using some measures. The National

Policy on Education (2004) stated that no educational system can rise above the level of its teaching staff; this means that the level of education depends or is a function of the staffs involved. This explains the role of teachers and the teacher education programmes in the national development of any nation. Therefore, the study focuses on the challenges encountered in the teaching practice process and possible ways of resolving the challenges.

**Research Hypotheses**

1. The classroom management experience has no significant influence on the student teacher's ability to achieve the expected teaching-learning objectives.
2. The curriculum development and instruction experience of the student teacher's has no significant effect on their professional competence.
3. The environmental experience faced by the student teacher has no significant effect on their effective performance during the teaching practice exercise.
4. The supervisory experiences have no significant influence on the student teacher's professional growth.

**Research Methodology**

The Descriptive Survey Design was used for this study. The descriptive survey design is one in which a group of people or items are studied by collecting and analyzing data for only a few people or few items considered to be representing the entire group (Nworgu, 1991). The population for the study was all the penultimate and final year students (300 level NCE, 300 and 400 level Degree Students) of 2017/2018 session from the Department of Physics, Adeyemi College of Education, Ondo who have completed the 2017/2018 teaching practice exercise. The researcher used the simple random sampling technique in selecting 60 NCE 3, 60 Degree 3 and 80 Degree 4 student teachers from the two levels involved (300 level NCE, 300 and 400 level Degree Students) and making a total of 200 student teachers which were randomly selected for the study. The instrument used for this research is a Questionnaire. The instrument used for the study was designed the researcher and it was titled "Questionnaire on Teaching Practice Experiences of Physics Student Teachers (QTPEPST)". The questionnaire used for this research work is closed-ended or restricted questionnaire that is the respondents are restricted to either agree or disagree response.

Options are given or provided for the respondents.

There are two sections of the questionnaire, A and B. section A sought to obtain personal information about the student teachers (respondent) like school of practical teaching and the class taught during the teaching practice exercise. Section B is used to elicit responses from the respondent with response options Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D). The data collected were analysed using the inferential statistics of Analyses of Variance (ANOVA) was used to test the four null hypotheses.

**Analysis of Results**

The research hypotheses raised for the study were carefully tested as shown below.

**Hypothesis 1**

**$H_0$1**: The classroom management experience has no significant influence on the student teacher's ability to achieve the expected teaching-learning objectives.

**$H_1$1**: The classroom management experience has significant influence on the student teacher's ability to achieve the expected teaching-learning objectives.

**Table 4.1:** Analysis of Variance showing the classroom management experiences of student teachers

| **Source** | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** | **Remark** |
|---|---|---|---|---|---|---|
| Corrected Model | 34.536[a] | 3 | 11.512 | 15.701 | .000 | Sig |
| Intercept | 4455.077 | 1 | 4455.077 | 6076.106 | .000 | |
| Student teacher ability | 34.536 | 3 | 11.512 | 15.701 | .000 | |
| Error | 730.280 | 996 | .733 | | | |
| Total | 12516.000 | 1000 | | | | |
| Corrected Total | 764.816 | 999 | | | | |

a. R Squared= .045 (Adjusted R Squared= .042)

From Table 4.1, P-values (0.00) were less than 0.05 level of significance. Therefore, the null hypothesis was rejected, while the alternative hypothesis was accepted. This implies that the classroom management experiences of student teachers have significant influence on their ability to achieve the expected teaching-learning objectives.

The $R^2$- value is 0.045, which is very low. This also implies classroom management experience of student teacher has a low

significant influence on the student teacher's ability to achieve the expected teaching-learning objectives.

**Hypothesis 2**

**$H_0$2:** The curriculum development and instruction experience of the student teacher's has no significant effect on their professional competence.

**$H_1$2:** The curriculum development and instruction experience of the student teacher's has significant effect on their professional competence.

**Table 4.2:** Analysis of Variance showing the curriculum development and instruction experience of student teachers

| **Source** | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** | **Remark** |
|---|---|---|---|---|---|---|
| Corrected Model | 5.831[a] | 3 | 1.944 | 3.505 | .003 | Sig |
| Intercept | 1783.740 | 1 | 1783.740 | 3216.791 | .000 | |
| Professional competence | 5.831 | 3 | 1.944 | 3.505 | .020 | |
| Error | 541.201 | 976 | .555 | | | |
| Total | 13823.000 | 980 | | | | |
| Corrected Total | 547.032 | 979 | | | | |

a. R Squared= .011 (Adjusted R Squared = .008)

From Table 4.2, P-values (0.003, .000& .020) are less than 0.05 level of significance. Therefore, null hypothesis was rejected, while alternative hypothesis was accepted. This implies that curriculum and instruction experience has significance influence on their professional competence.

The $R^2$- value is 0.011, which is very low. This also implies that curriculum development and instruction experience of student teacher has low significant effect on their professional competence.

**Hypothesis 3**

**$H_0$3:** The environmental experience faced by the student teacher has no significant effect on their effective performance during the teaching practice exercise.

**$H_1$3:** The environmental experience faced by the student teacher has significant effect on their effective performance during the teaching practice exercise.

**Table 4.3:** Analysis of Variance showing the environmental experience faced by student teachers

| Source | Sum of Squares | Df | Mean Square | F | Sig. | Remark |
|---|---|---|---|---|---|---|
| Corrected Model | 57.158[a] | 3 | 19.053 | 49.088 | .000 | Sig |
| Intercept | 4142.993 | 1 | 4142.993 | 10674.217 | .000 | |
| Effective performance | 57.158 | 3 | 19.053 | 49.088 | .000 | |
| Error | 382.697 | 986 | .388 | | | |
| Total | 13184.000 | 990 | | | | |
| Corrected Total | 439.855 | 989 | | | | |

a. R Squared= .130 (Adjusted R Squared= .127)

From Table 4.3, P-values (0.00) were less than 0.05 level of significance. Therefore, the null hypothesis was rejected, while the alternative hypothesis was accepted. This implies that environmental experience faced by the student teacher has significant effect on their effective performance during the teaching practice exercise.

The $R^2$- value is 0.130, which is very low. This also implies the environmental experience faced by the student teacher has low significant effect on their effective performance during the teaching practice exercise.

**Hypothesis 4**

**$H_0$4:** The supervisory experiences have no significant influence on the student teacher's professional growth.

**$H_1$4:** The supervisory experiences have significant influence on the student teacher's professional growth.

**Table 4.4:** Analysis of Variance showing the supervisory experiences of student teachers

| Source | Sum of Squares | Df | Mean Square | F | Sig. | Remark |
|---|---|---|---|---|---|---|
| Corrected Model | 38.259[a] | 3 | 12.753 | 26.277 | .000 | Sig |
| Intercept | 2001.396 | 1 | 2001.396 | 4123.805 | .000 | |
| Professional growth | 38.259 | 3 | 12.753 | 26.277 | .000 | |
| Error | 473.680 | 976 | .485 | | | |
| Total | 7570.000 | 980 | | | | |
| Corrected Total | 511.939 | 979 | | | | |

a. R Squared= .075 (Adjusted R Squared= .072)

From Table 4.4, P-values (0.00) were less than 0.05 level of significance. Therefore, the null hypothesis was rejected, while the alternative hypothesis was accepted. This implies that the supervisory experience experiences of student teachers have significant influence on their professional growth.

The $R^2$- value is 0.075, which is very low. This also implies the supervisory experience of student teacher has low significant influence on their professional growth.

**Discussion of Results**

Based on the analysis of data, some findings were made. The findings were discussed appropriately.

The hypothesis that states the classroom management experience have no significant influence on the student teacher's ability to achieve the expected teaching-learning objectives was tested using the analysis on table 4.1. The finding of this study shows that the classroom management experience has a significant influence on the student teacher's ability to achieve the expected teaching-learning objectives. This result is in line with the views of Ndiyo (2011), which asserted that among the factors that influence students' academic performance, teachers' efficiency in classroom management stands out as the most important. The result is also in agreement with Baker (2000) who states that effective classroom management techniques supports and facilitates effective teaching and learning, in so doing enhancing students' academic performance and Akubue (1991) who asserted that classroom management aims at encouraging and establishing student self-control through a process of promoting positive student achievement and behaviour. Table 4.1 revealed that classroom management challenges faced by student teachers during teaching practice include poor arrangement of sitting position of pupils, controlling pupils' noise during the class, enforcing disciplinary rules and regulations, organizing student for active discussion about issues relating to real world applications of topics taught and the classroom conditions in the area of the arrangement and ventilation.

The hypothesis which states that the curriculum development and instruction experience of the student teacher's has no significant effect on their professional competence was tested. In testing this hypothesis, table 4.2 was used. The finding of this study shows that the curriculum development and instruction experience of the student teacher's has significant effect on their professional competence. It was

observed that the relevant textbooks needed for effective teaching and learning were not available, Student teachers were unable to master the subject matter and marking of students exercises were difficult as a result of overcrowded classroom.

The hypothesis which states that the environmental experience faced by the student teacher has no significant effect on their effective performance during the teaching practice exercise was tested. In testing this hypothesis, the analysis in table 4.3 was used. The finding of this study shows that the environmental experience faced by the student teacher has significant effect on their effective performance during the teaching practice exercise.

The hypothesis which states that the supervisory experience have no significant influence on the student teacher's professional growth. From the analysis of hypothesis 4 as shown in the analysis on table 4.4, it shows that the supervisory experiences have significant influence on the student teacher's professional growth. The researcher discovered that there is lack of cordial relationship between the supervisor and the student teachers. The findings also agreed with the inability of the supervisor to give feedback to the student teachers on their performance to enable them take corrections in the areas of their weaknesses and mistakes. This is in contrast to the word of Gall (2003) who stressed that supervision should not be an autocratic exercise but collaborative and interactive.

**Conclusion**

To achieve a functional education for values, knowledge, skills and national development, teaching practice as an essential and integral part of teacher education programme must be properly overhauled, organized and treated with every sense of seriousness and recognition. As a phase of pre-service education of teachers offering opportunities for trainee teachers to interact with real students and bridging the gap between theory and practice, teaching practice experience which is made a compulsory pre requisite for graduation should be treated with all seriousness. Being custodians of knowledge who need skill and method to disseminate information to students, trainee teachers should therefore make frantic efforts to improve their teaching skills (Enaibe et al, 2010). This surely will help to equip them for an ideal performance of their teaching job.

The result from the findings of this study showed that, within the student teaching practice experiences, student teachers

encountered difficulties which can be attributed to the problems associated with the classroom management, conducive environment and facilities, curriculum development and instruction and supervision.

Classroom management represents one of the major challenges faced by student teachers during their teaching practice experience. Classroom management is challenging for student teachers due to the difficult provision of realistic situation in the educational studies classroom prior to the student teaching. Contributing to this are the classroom dynamics that vary widely depending on the level of the classes, the time of the day and the students. This approach provides a practical approach that still falls short of simulating the experience but exposes student to real life situations, expectation and strategies in regard to dealing with classroom management.

Also, in regards of practicing school environment and the school physical facilities especially the school laboratories. The laboratories of most of the practicing school are poorly equipped, usually possessing only old apparatus and experiments, with no explanations or teaching scenarios. Innovative textbooks would be required and new experimental set-ups, the provision and the use of computer guided laboratories and lots more are required for effective practical teaching.

In addition, student teachers are expected to get supervisors feedback to enable them take corrections and make amends. The attainment of quality education will be a mirage without adequate preparation of manpower that will dispense the adequate knowledge. This calls for serious consideration of stipulated strategies to be adopted in tackling the challenges which student teachers face so that the challenges will be reduced to the minimal level with the aid of the stated panacea (solutions) as stated in the main body of this research work.

Finally, to complete the teacher education program without experiencing teachers' professional identity is like being immersed in water but not getting wet. Experiencing teachers' professional identity is of vital importance for every student teacher since it helps build their arsenal of knowledge and approaches. Through this experience, the student teacher also knows and understands how to handle the diverse challenges he might or will go through when he or she becomes a teacher.

## RECOMMENDATIONS

Based on these findings of this research, the following recommendations were made:

1. Proper attention should be given to the classroom management by the student teachers in order to achieve the specific objective at the end of the lesson in the classroom.
2. Adequate curriculum guidelines, facilities, reference materials like textbooks etc. should be made available to facilitate effective and efficient teaching and learning.
3. Practicing school laboratories and libraries should be adequately furnished with modern and current apparatus, textbooks, computer and its accessories so that student teachers will have access to them for effective teaching.
4. During teaching practice, student teachers should be given projects, covering all aspects of teaching practice to be submitted to TP coordinators at the end of the Teaching practice programme that is a kind of intensive report.
5. For proper supervision and eradicate insincerity on the part of supervisors, the institutions should as a matter of necessity increase staff/supervisors T.P allowance and also pay them before embarking on supervision to motivate them.
6. Student teachers should be made to learn by watching the lessons of experienced teachers at least for the first one week and write evaluation reports on them and the supervisors should then provide guidelines to them in the light of their evaluation report in order to make the exercise more effective.
7. Allowance should be given to student teachers during the teaching practice exercise so as to motivate them just like their counterpart in engineering, accounting and the likes.
8. Student teachers should endeavor to develop a healthy relationship with their supervisors and cooperating teachers so that they can put them through for the effectiveness of the exercise.
9. The student teachers should be provided with lodging accommodation by the practicing schools and if peradventure this is not available student teachers should make sure they choose school closer to their vicinity.

10. Student teachers should choose schools with high quality standard with enabling learning environment for the teaching practice exercise.

**REFERENCES**


Akubue, A. U. (1991). *Classroom organization and management, A 5-point strategy*. Ibadan: Wisdom Publishers Ltd.

Baker, B. O. (2000). *Effective Classroom Management Techniques in the Teaching Profession*. New York: Lori Publisher.

Enaibe, P. U. & Imonivarha, P. A. (2010). The place of teaching practice in teacher education progrmme in Nigeria: State of affairs in the 21st century. *Issues and Challenges in Nigeria Education in the 21st Century*. West and Solomon Publishing.

Federal Republic of Nigeria (2004). *National Policy on Education*. Lagos: NERDC Press

Gall, N. U. (2003). *Teaching practice in the republic of Maldives, issues and challenges*.Pacific Asia Educational 12(2): 40-56.

Iniobong, A. U. (2008). Attitude of student teachers towards teaching practice in the University of Port Harcourt, River State. Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2(1) 4-46.

Maduewesi, K. (1990). Communication between Theory and Practice: How student teachers develop theories of teaching. *Australian Journal of Education*, 21(1) 18-22.

Ndiyo, P. S. (2011). *Impact of Classroom Management on students' academic* performance. Umuahia: Chuks Press, Nigeria

NTI (2005). *Manual for the Re-training of Primary School Teachers*: *School Based Assessment*. Kaduna: NTI Press

Nworgu, B. G. (1991). *Educational research: Basic issues and methodology*. Ibadan: Wisdom Publishers Limited.

Oyekan, S. O. (1997). *Groundwork of Curriculum and Instruction*. Ibadan: Alafas Nigeria Company.